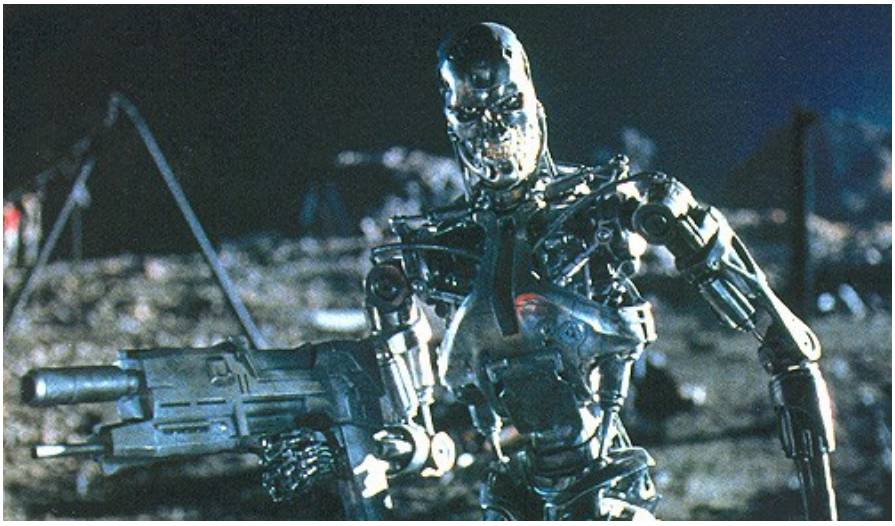
A Long-Term Survival Guide – How To Survive Killer Robots:

(A Brief Guide For Survivalists)

Advances in technology have now made combat robots a reality in the modern world. Once confined to science fiction stories, military robots are already in use, and they are also being improved upon at an astonishing rate. This guide is intended to give you a basic familiarity with the major types, so you won't be caught off-guard. Knowing what to expect should be a big help, if you ever need to survive a close encounter with killer robots.



Science fiction often depicts warbots as humanoid, but actual combat robots are shaped like vehicles.

Here are some small combat robots, tracked units from the Talon series, armed with a variety of weapons.

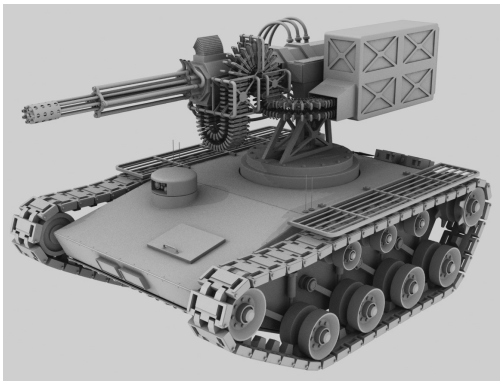
There are three basic types of military robot; landbots, or robot ground vehicles, airbots, or robot aircraft, and subbots, or robot submarines. There are many kinds of robot in each type, with a wide range of possible sizes, intended uses, and available weaponry. There are also robotic gun platforms, which can be mounted on manned or robotic vehicles, or installed around fixed positions as part of an automated defense network.

A complete list of the different kinds of warbots is already quite extensive, and more designs are being tested all the time. The militaries of every advanced nation love these machines for their many tactical advantages, so they are certain to become more common as time goes by. Getting familiar with the current crop of warbots is the best way to keep from being caught by surprise, should you ever encounter any of these devices, so lets look them over.

Gunbots, or Robotic Guns:

Here are two types of robotic guns. These can be mounted on warbots, or used as defenses for fixed positions. Gunbots can be remotely operated, fully automated, or both. They can use both lethal and non-lethal ammo.

Landbots, or Robot Ground Vehicles:



Robotic combat vehicles can be full-sized, smaller than normal size, or scaled-down miniature versions.

Any manned military vehicle can now be equipped with robotic controls, to be operated remotely.

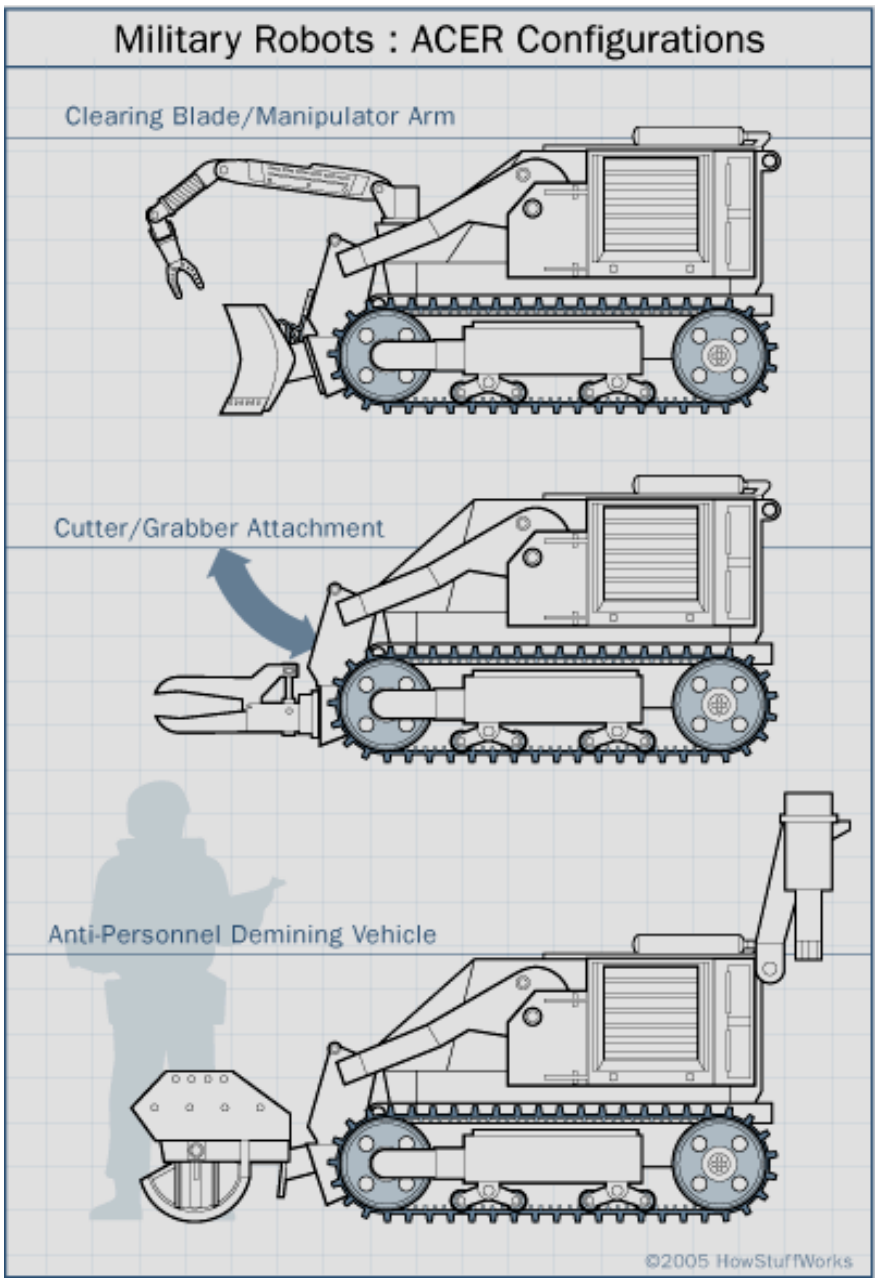
The full robotization of war, even at the lowest level, has already started. Not only are the ethical considerations frightening, the pace is astonishing. Everything from the dumbest land mine to the smartest missile has already been improved ten-fold over the last 20 years. Armies are already using the first remote controlled land warbots, as well as robot aircraft, and these will soon be fully automated, after the unheralded success of US Air Force systems like Global Hawk, Predator, and other intelligence gathering, unmanned, remote-controlled vehicles. One Predator even managed to kill an alleged group of terrorists traveling in a moving car, using powerful Hellfire antitank missiles; operated by remote control, and so not truly autonomous yet.

Robot vehicles can be used for dangerous missions, with no worries about loss of life if they are destroyed.

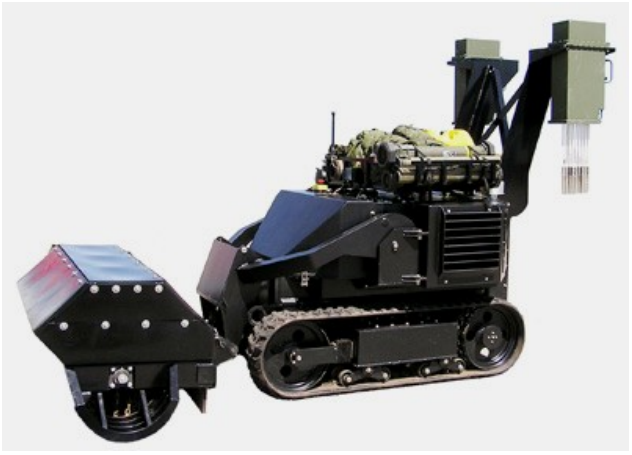
Size is another large consideration: As early as WWII, the Soviets discovered that by making their tanks smaller they could save money and crews, by using less armor plating, and by reducing the size of the target presented to the enemy. Today, tank engineers look for ways to reduce the crew size, and removing the crew altogether allows for a tank half as high (height is an important consideration in the battlefield), and a third lighter. Plus, as a bonus, the tank is harder to see on radar, due to its low profile. In fact, with no crew to protect, it can violently self-destruct (when the enemy is close) if it should run out of ammo, or in case it becomes critically damaged, or if it should be captured by the enemy.

Removing crew quarters allows warbots to be smaller, lighter, and harder to detect than manned vehicles.

And there is another major benefit of robot combat vehicles; zero friendly casualties if the warbot is destroyed. This is probably the most important reason fully automated weapons systems will be adopted in short order. Politicians who wish to wage war do so at their own peril in the face of heavy casualties. Casualties, by the way, are not just those killed in battle, but also the wounded. Every death or disfigurement of our soldiers translates in to lower poll numbers. Collateral damage, as civilian deaths are euphemistically called, will still be high, and may even rise further with machines not being able to effectively separate friend from foe. But this is less of a problem, as the deaths tend to be the enemy, and not our troops.



The Acer series is a small tracked unit. These can be armed, or equipped for jobs like mine detection.



Acer robot minesweepers can detect and dispose of landmines and boobytraps, with no human casualties.

Robot vehicles can be used to deliver equipment and supplies, without risking the lives of human drivers.

Military robots can be equipped for combat, spying, or for detecting and destroying explosive charges.

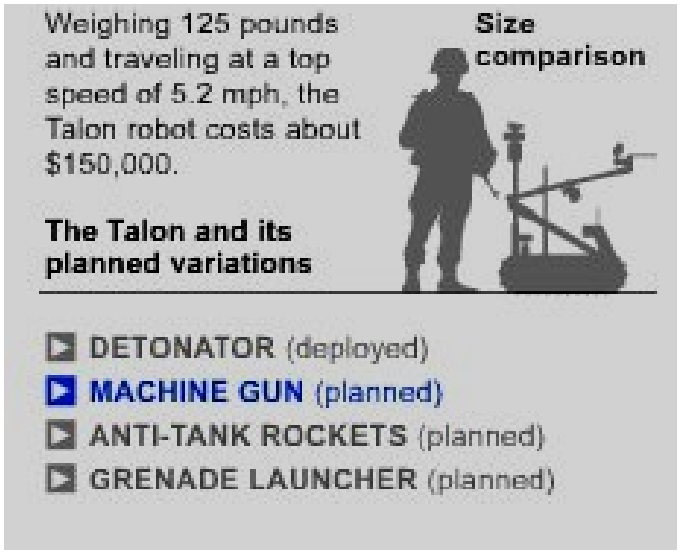
There are many mundane military tasks that robots are well-suited for. These include construction of roads, bridges, and bunkers in hostile areas, where humans would be at risk from enemy gunfire. Robots also make good firefighters, and can work in situations too dangerous for people, such as in fuel or munitions bunkers.

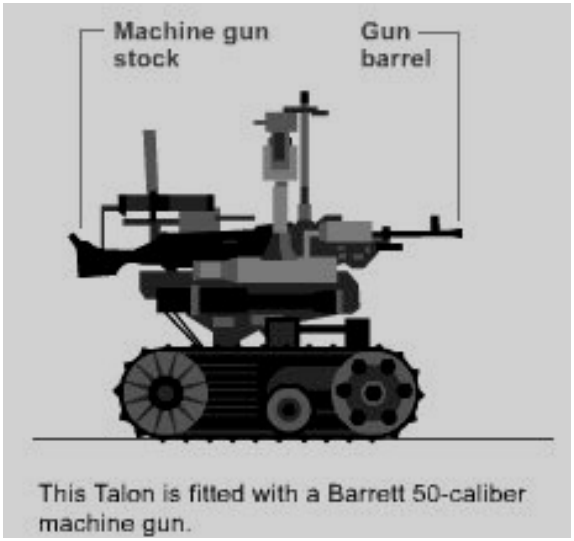
Gladiator: The recently introduced US Marines Gladiator is anything but a passive automated truck. This ATV turned mini tank literally bristles with armament, including a machine gun, mortars, mine launchers and rockets. The soldier in the background of the picture to the right is holding the remote control.

The Gladiator tactical unmanned ground vehicle, or TUGV, is a remote-controlled reconnaissance robot. It can carry out search-and-discovery missions in potentially hostile areas, warn soldiers of dangers ahead, and protect them from mine fields, craters, trenches, hidden enemies, or threats like chemical, biological, or nuclear traps.

The latest Gladiator prototype has containers for hand grenades that can be used for clearing obstacles, and creating a footpath on difficult terrain, for soldiers following behind. It also features launchers for smoke and other grenades, and has a mount on top for a medium-size machine gun, or a multipurpose assault weapon.

The robot has been designed to fit into a military Humvee, for transport. A soldier will drive the Gladiator remotely, using a joystick. He'll wear a special helmet fitted with an eyepiece, through which he'll see what the robot sees, even though it could be miles away. Gladiators are available with tracks, or with six-wheel drives.


Weighing 125 pounds and traveling at a top speed of 5.2 mph, the Talon robot costs about $150,000.
Size comparison
The Talon and its planned variations
DETONATOR (deployed)
MACHINE GUN (planned)
ANTI-TANK ROCKETS (planned)
GRENADE LAUNCHER (planned)



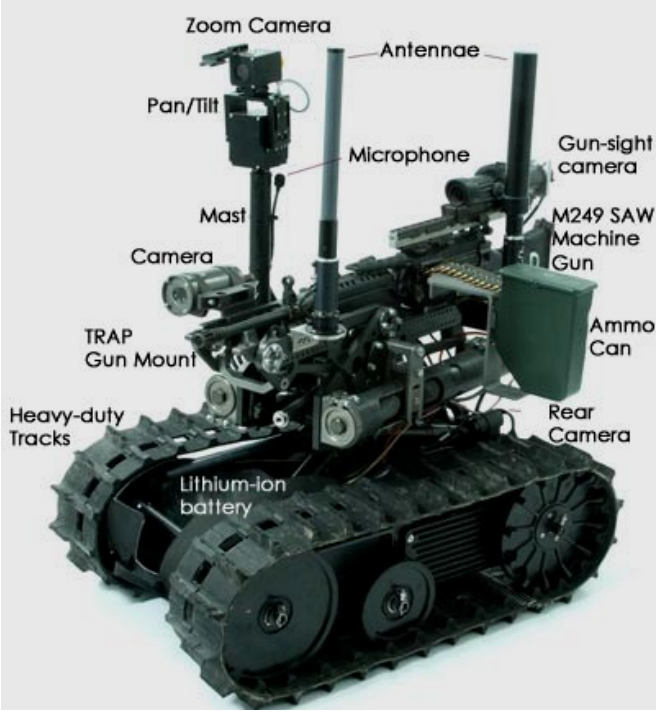
The Talon is another small, versatile military robot.

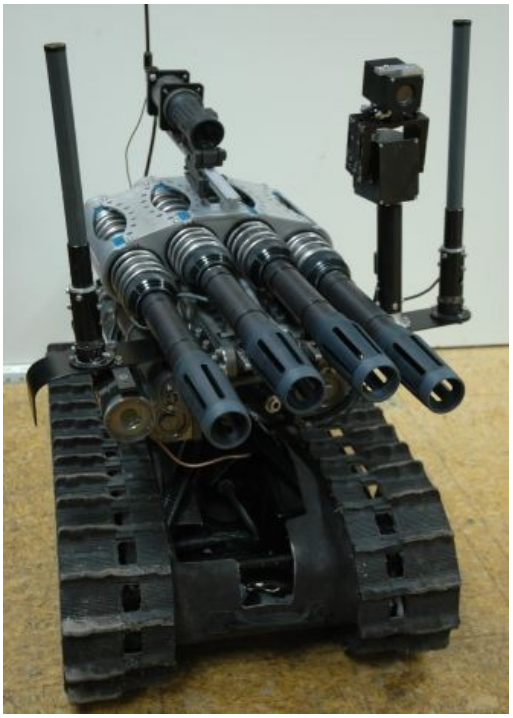
Here is one version of a Talon robot, shown with its control case.

Talon: TALON robots are manufactured by Foster-Miller Inc. The SWORDS model can be configured with M240 or M249 machine guns, or Barrett 50-caliber rifles. TALON robots are powerful, durable, lightweight tracked vehicles that are widely used for explosive ordnance disposal (EOD), reconnaissance, communications, sensing, security, defense and rescue. They have all-weather, day/night and amphibious capabilities and can navigate virtually any terrain. TALON key characteristics: Man-portable - At less than 100 lb, TALON can be easily transported and is instantly ready for operation. Rugged - TALON robots can take a punch and stay in the fight. One was blown off the roof of a US Humvee in Iraq, while the Humvee was crossing over a river on a bridge. TALON flew off the bridge and plunged into the river below. Soldiers later used its operator control unit to drive the robot back out of the river and up onto the bank so they could retrieve it. Fast - TALON is the fastest ground robot on the market at the moment, with seven speed settings. High payload capacity - Long-term system versatility optimizes investment. TALON has the highest payload capacity and payload-to-weight ratio, allowing for the incorporation of a broad array of sensor packages. Mobile - Climbs stairs, negotiates rock piles, overcomes concertina wire, ploughs through snow and surf; plus can right itself. Intuitive - widely regarded as the easiest robot to operate; joystick controls. Withstands repeated decontamination - Demonstrated at Ground Zero after 2001 World Trade Center attack in New York City. Electronics withstood 45 straight days of being decontaminated twice a day without failing. Long battery life - TALON robots currently have the longest battery life of all man-portable robots.

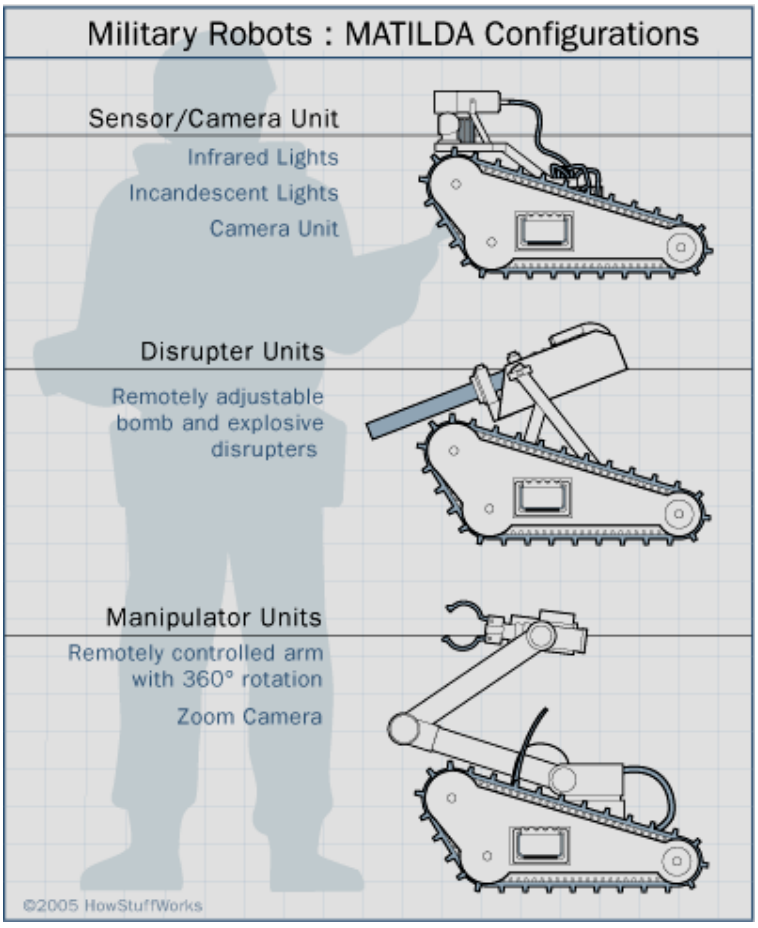
Here are three Talon warbots, armed with a multiple rocket launcher, a machine gun, and a multiple grenade launcher. These units are presently controlled by a remote operator, using a control case, but developers are working hard to make these units semi-autonomous, and the eventual goal is a fully autonomous unit.

Talons can be armed with light machine guns, heavy machine guns, or multiple grenade launchers.



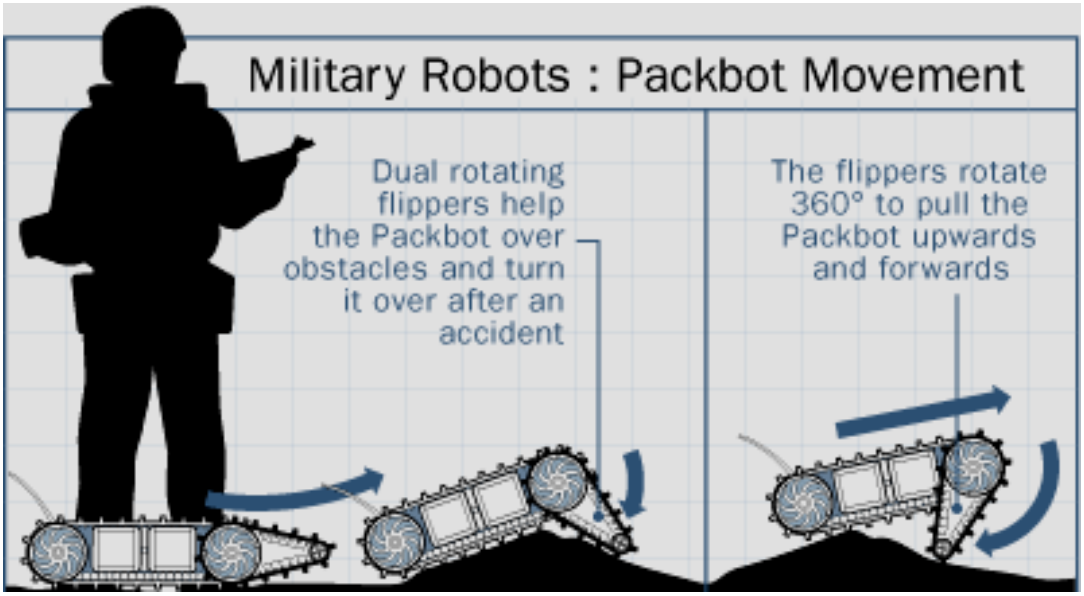


Here are the basic parts of a Talon, and a forward view of the grenade launcher version.

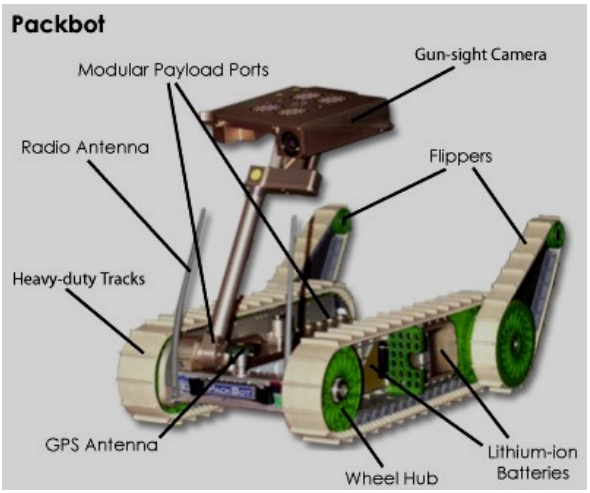


Matilda is a military robot which is small enough to be carried by one soldier in a pack (a Packbot).

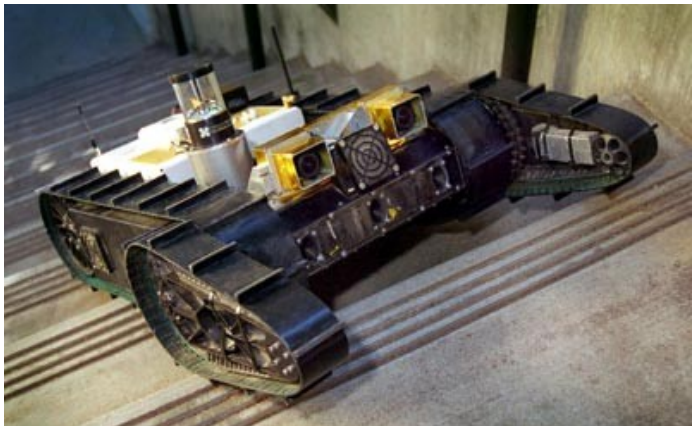
Here is the basic Matilda, and a Matilda with the robotic arm option.


Military Robots : Packbot Movement
Dual rotating flippers help the Packbot over obstacles and turn it over after an accident
The flippers rotate 360° to pull the Packbot upwards and forwards

Packbots are better than binoculars; they let troops look around while staying in protected field positions.



Here are the basic parts of a packbot; the camera can raise for better viewing, or fold to keep a low profile.

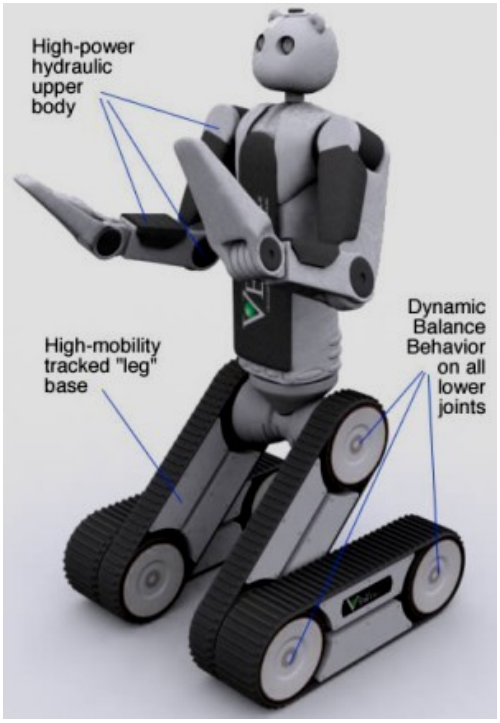


Packbots are useful for searching tunnels and buildings; they can climb stairs, and crawl through air vents.

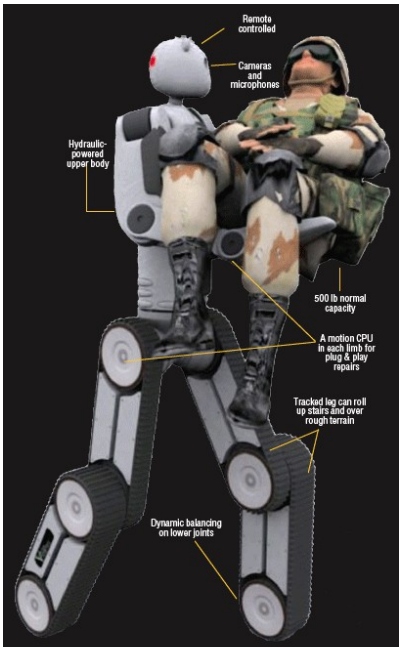
Slightly larger packbots are well-suited for outdoor use, and they retain the advantages of smaller models.

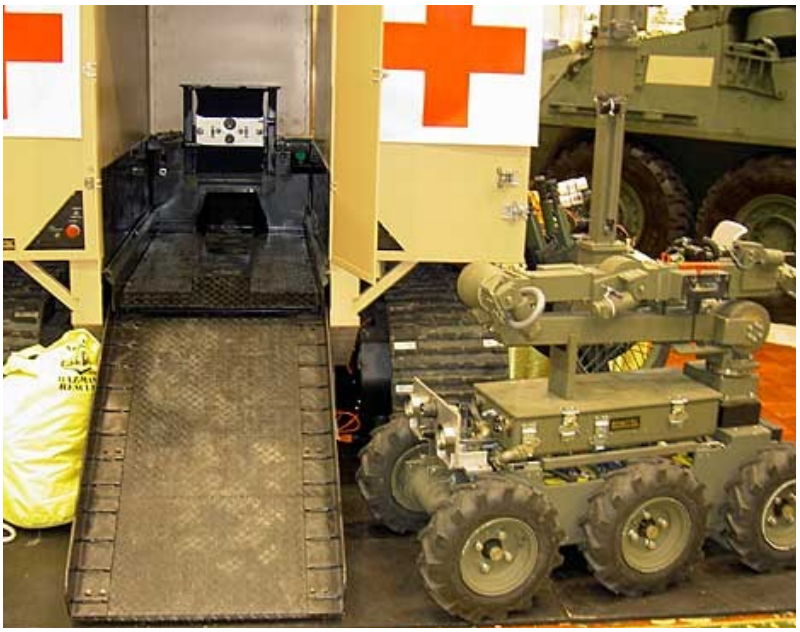
Larger packbots can carry cameras, or they can be armed with weapons, like this bazooka-carrying unit.

Wheeled versions of the packbot are now used for investigating suspicious vehicles. There are also smaller robots, called throwbots, which can be tossed through a window, so that they can look around inside buildings.

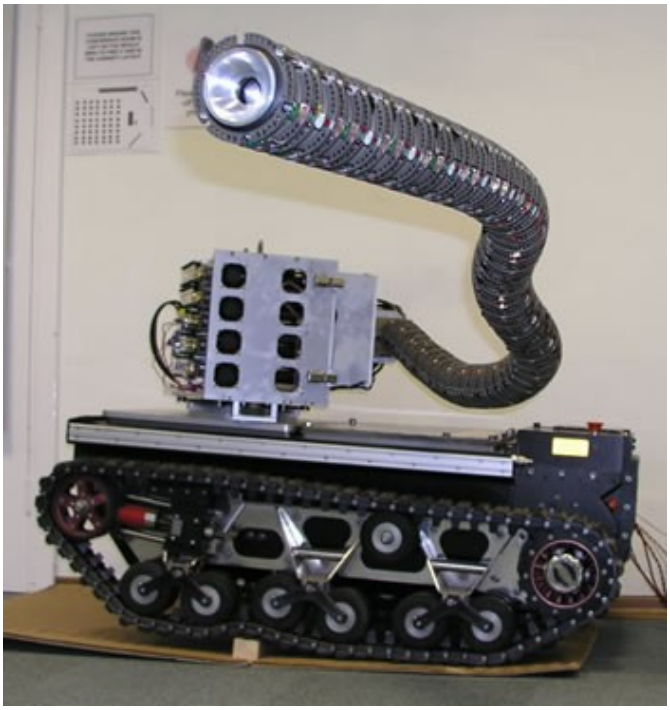


One of the most dangerous jobs in combat is the rescue of a wounded soldier while still under fire. This is especially true in the war on terrorism, with enemies that do not respect the noncombatant status of medics. Designed by the US army (who else), here is a robot intended for military search-and-rescue missions that can negotiate terrain too dangerous for people. The "Battlefield Extraction-Assist Robot" or "BEAR," is an agile, powerful robot capable of lifting and carrying an injured human. It's equipped with hydraulic arms that can support injured soldiers with full battle gear (up to 500 lbs), a gyro system, and a tracked base with joints, to give it maximum mobility. It can move in standing,, kneeling, or prone positions, to climb stairs, steep slopes, and to travel over rough terrain. It can also be used for logistics support (loading supplies off and on trucks).

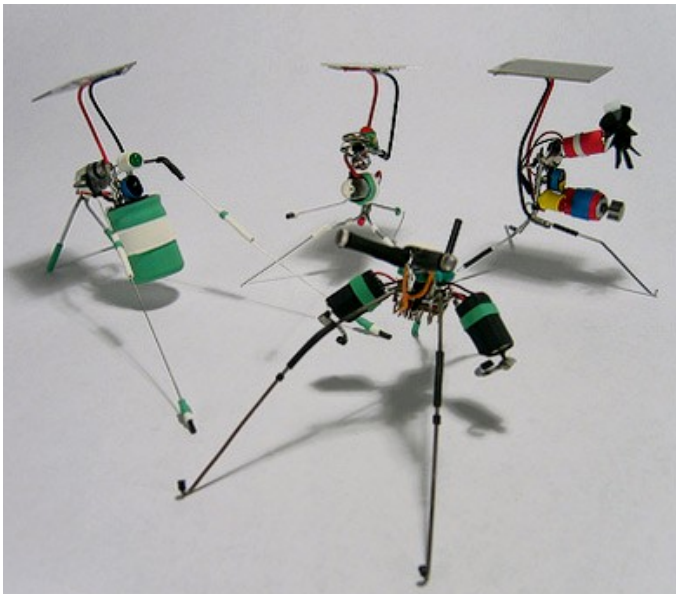

Remote controlled
Cameras and microphones
Hydraulic-powered upper body
500 lb normal capacity
A motion CPU in each limb for plug & play repairs
Tracked leg can roll up stairs and over rough terrain
Dynamic balancing on lower joints



The picture on the right is of an unmanned ambulance. The Robotic Extraction Vehicle, or REV, is a 10-foot-long, 3,500-pound robot that can carry two stretchers with life-support systems inside its armored skin. The idea is for battlefield medics to stabilize injured soldiers, and then send them back to a field hospital in the REV. But the REV also carries an electrically powered, 600-pound, six-wheeled robot with a mechanical arm, that can drag a wounded soldier to safety if there isn't a BEAR robot available, or a flesh-and-blood soldier around.



There are also more unusual ground robots, such as the snake-arm robot, and the snakebot. The flexible arm of the snake-arm robot, and the flexible body of the snakebot, allow them to spy through small openings.



The final type of landbot is the bugbot, or micro ground vehicle. These tiny robots can be carried into position by larger robots, or dispersed by troops, or even dropped by air over the target area. They are designed to be released en mass, so that swarms of bugbots can search a building or other area, and relay pictures and data back to a controlling computer. Bugbots can also be designed to kill people, by detonating a tiny explosive charge after climbing onto a target, or by exploding after reaching the fuel tank of a vehicle, or even by releasing a tiny amount of chemical or biological agent onto the target. Future bugbots may even be equipped with venomous stingers, in imitation of nature.

Airbots, or Robot Aircraft:

Combat airbots are quickly taking over the sky, and the days of traditional manned planes are clearly numbered. The US Air Force freely admits that there is no planned successor to the F-22, because the next generation will be unmanned. Why? Because it's cheaper; no pilot who needs millions of dollars in training, or expensive systems to protect his fragile human body. Already the F-22 is capable of executing violent maneuvers that would disable a man, making an automated version much faster and more agile. The need for a pilot to discern targets has long been relegated to forward air controllers and friend or foe detection systems; any automated aircraft can detect, identify and fire long before a human could process the needed information.

Airbots already come in a wide variety of designs, from jets and prop craft, to robot helicopters.

Smaller airbots can be assembled in the field, or even carried into battle by soldiers, and hand-launched.

There are many types of small, hand-launched robot aircraft already in common use.

Police like small airbots, because they are much cheaper to buy and operate than any piloted aircraft.

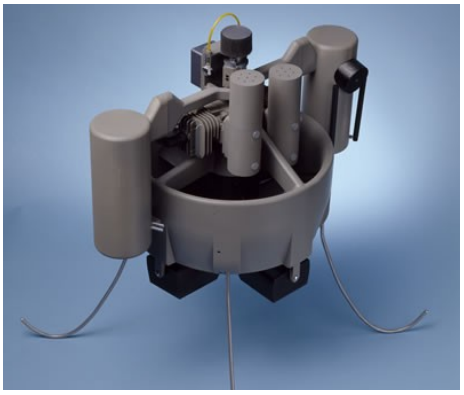
Airbots can also have advanced wing designs, or extra features, such as pontoons for amphibious use.

Another type of airbot is the robot helicopter.

Small robot copters are already being used for surveillance, and for search and rescue missions.

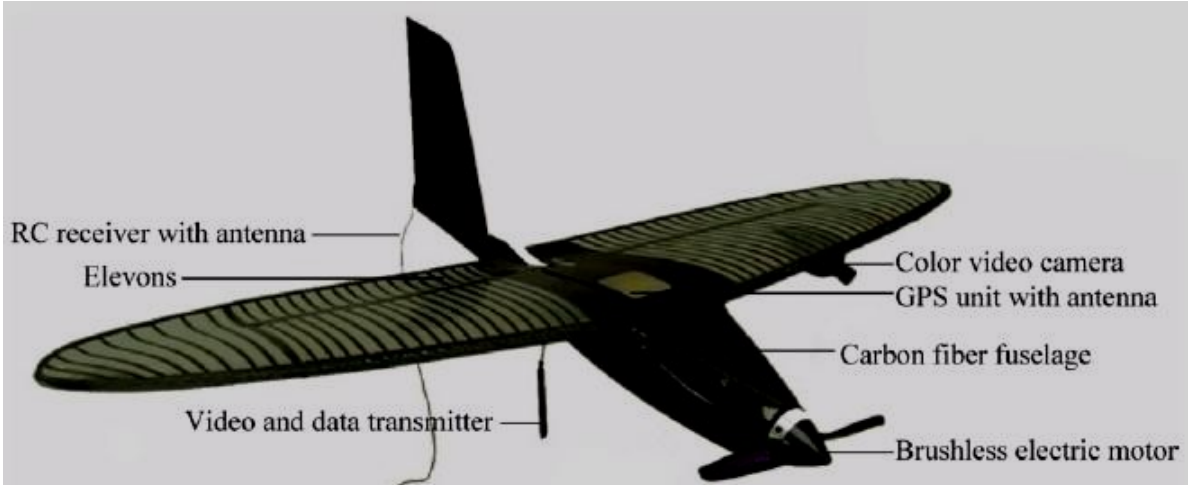
Helicopter airbots have the same cost advantages as airbot planes, plus they can hover in one spot.

Some airbot copters look like tiny cargo copters (the camera is the cargo); others have unusual designs.

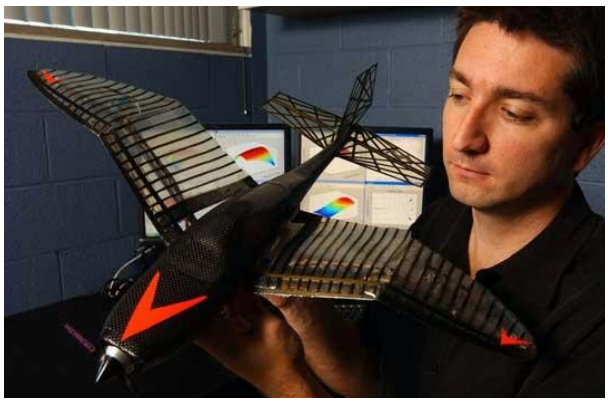


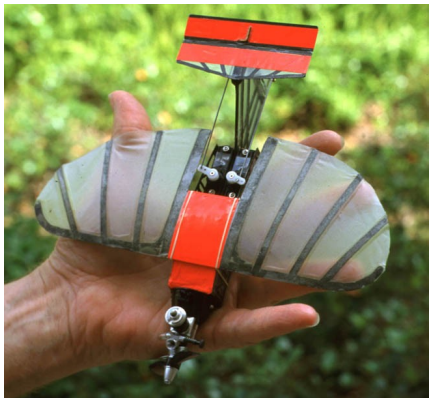
This is one of several new hovering airbot designs currently being tested by the military.

MAVs, or Micro Air Vehicles:



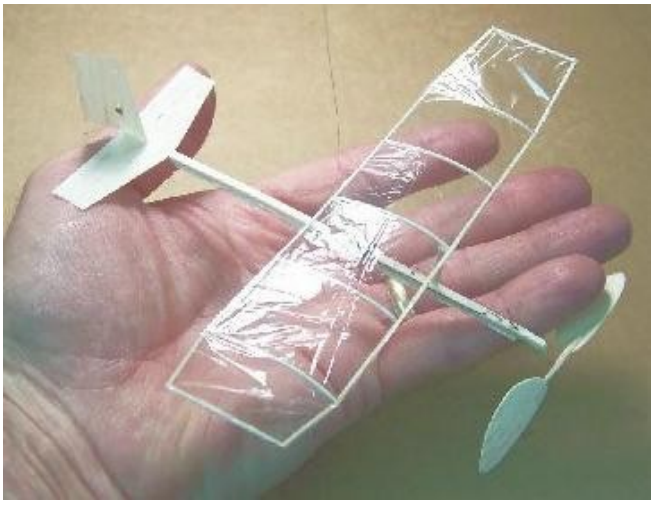
The smallest airbots are called MAVs, or micro air vehicles. These tiny aircraft get smaller every year.

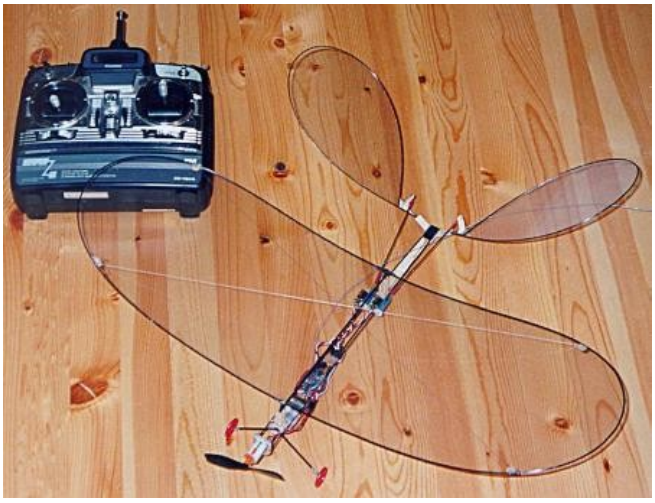




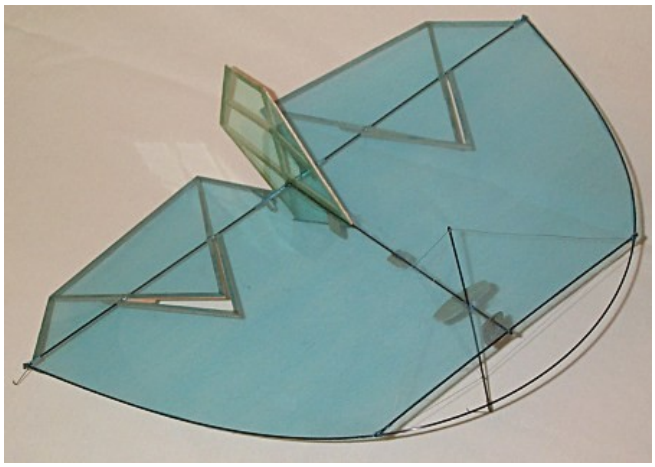
Some mavs are miniature airplanes, and some are ornithopters, which flap their wings like birds.

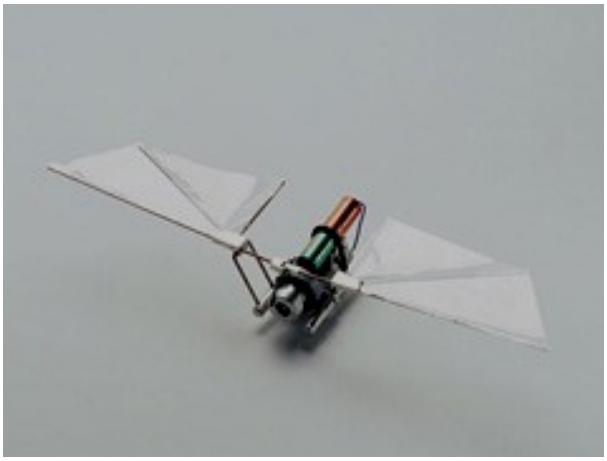
One man can carry a whole squadron of these tiny airbots in a pack, or they can launch from larger robots.



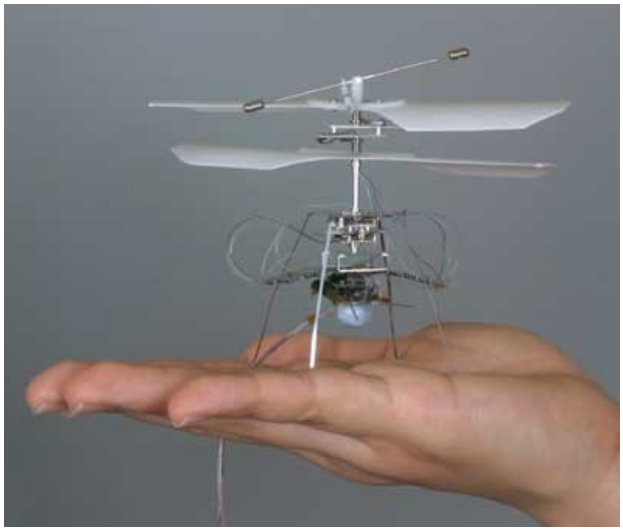


The smallest mavs are best suited for jobs such as searching buildings, as they are easily blown off-course.



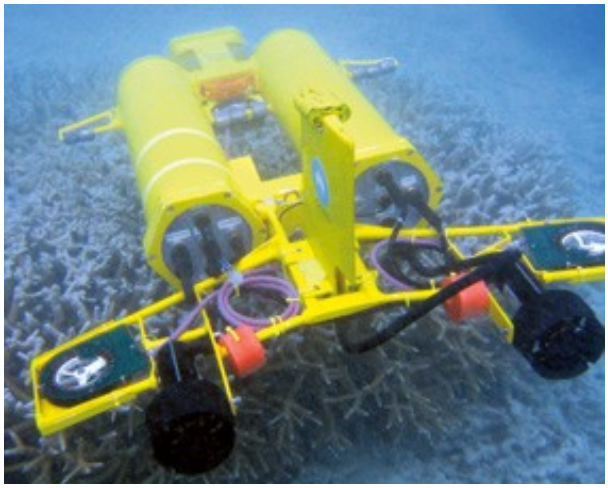


Tiny mavs are starting to look more and more like flying insects, but they can still injure or kill. (Picture a swarm of these flying around looking for heat signatures, then landing on a target's head and exploding.)

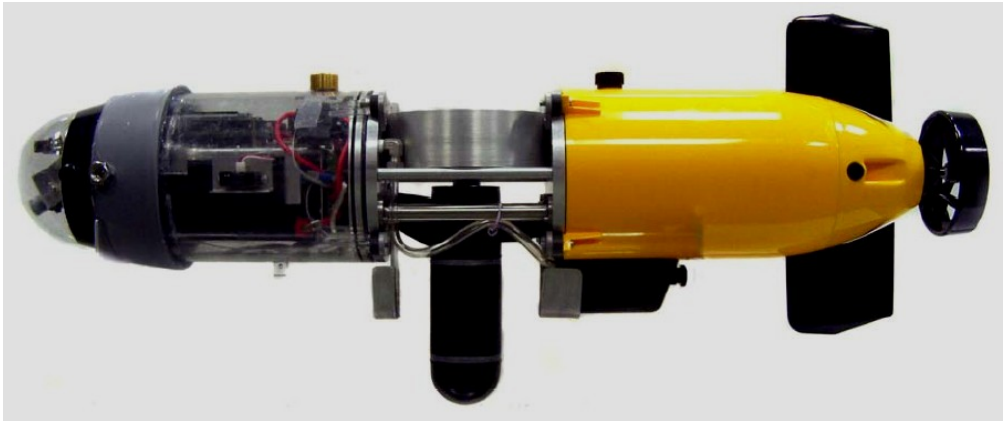


The use of dual counter-rotating blades has allowed airbot helicopters to be reduced to the size of bugbots.

Subbots, or Robot Submarines:

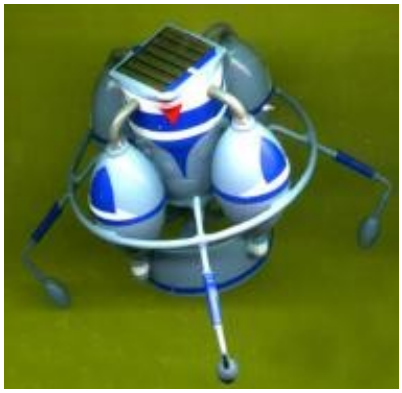


There are a wide variety of robot submarines in use, and more still under development.



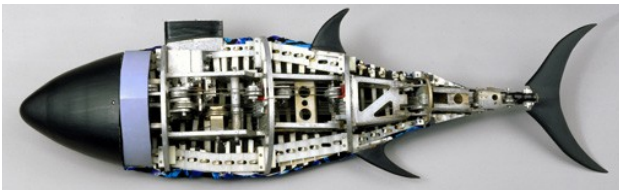
Subbots are replacing human divers, just like other robots are replacing pilots and drivers.

Subbots never get the bends, or run out of air, and they keep getting smaller and cheaper, like other robots.

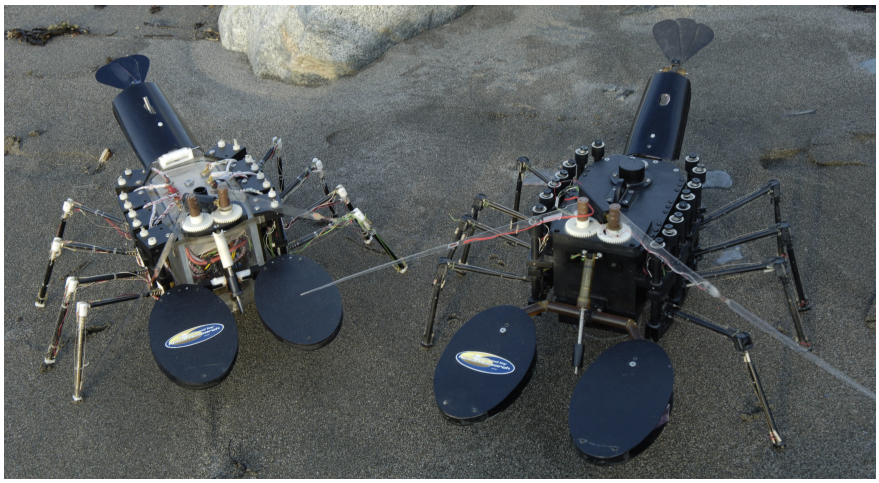


The smallest subbots now look like toys, but they can carry cameras and explosives.

The most interesting subbots are designed to look like marine life, like these robot sharks.



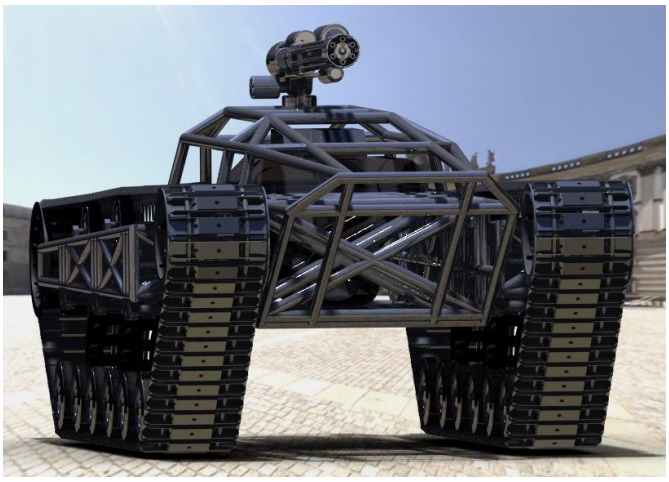
Check out this robot fish, which is designed to swim like the real thing.



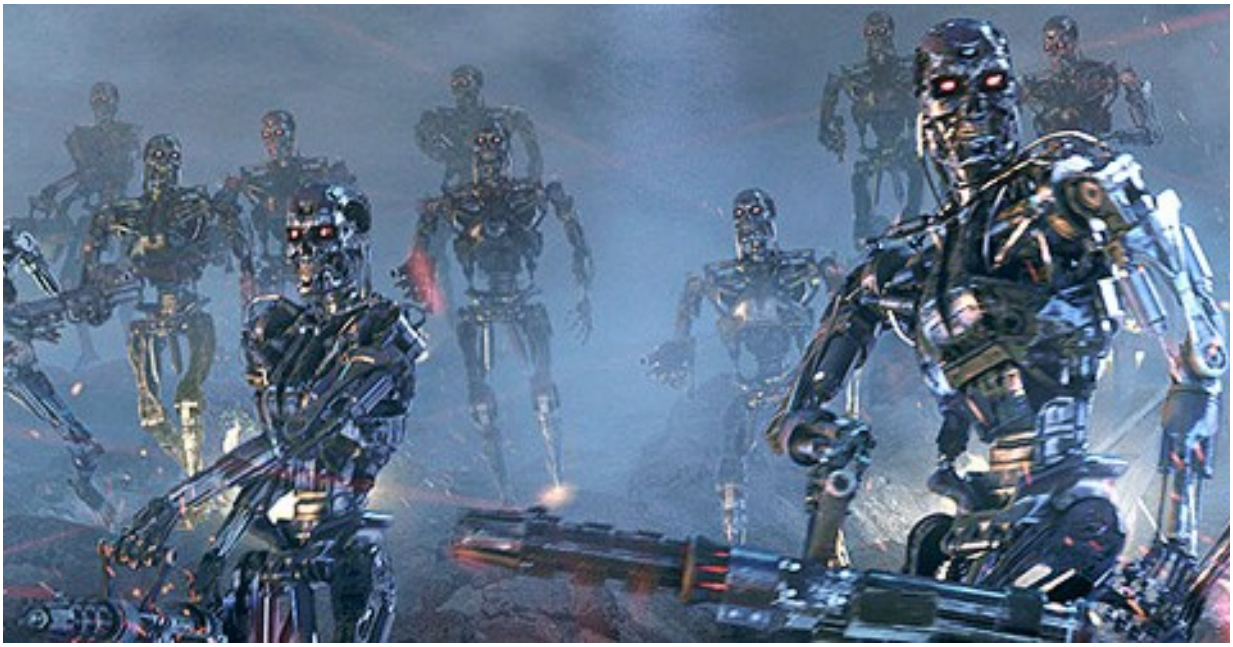
These robot lobsters are designed to search shallow waters for mines, and destroy them by exploding. The lobster shape is a stable design for use in ocean waves, and the claws are actually dual metal detectors.

One of the newest warbots is the Ripsaw tank, which can be piloted, or operated by remote.

Ripsaw armored vehicles have extendable tracks, for high-speed travel; they can exceed 60 mph.



The remote operator's station for the pilotless ripsaw consists of the controls, and a bank of LCD monitors, which display real-time images from the tank's multiple cameras. Remote operating stations can be located inside stationary bunkers, or mobile command vehicles. I expect the ripsaw to go fully autonomous, in time.



As they can be designed to self-destruct if they are damaged or trapped, capturing warbots is not practical.

The best way to defeat combat robots (at this time), is to destroy them from a safe distance, using high-power weapons, grenades, Molotov cocktails, and explosive booby-traps. Any machine can be disabled with conventional weapons, and robots are also susceptible to being “blinded” by having their cameras splashed with paint, or with mud. (Now the army will equip all of their robots with camera wipers.) Just be very careful about approaching “dead” bots, as they may be playing possum. Good Luck, and Happy Hunting!